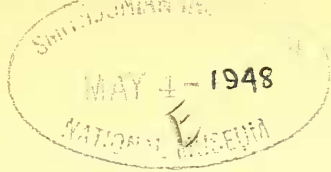


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THE TECHNICAL NAME OF THE VIRGINIA DEER WITH A LIST OF THE SOUTH AMERICAN FORMS

By PHILIP HERSHKOVITZ

The earliest valid scientific name for the Virginia, or White-tailed Deer is *Dama virginiana* Zimmerman ("Geographische Geschichte des Menschen und der vierfüssigen Thiere," Leipzig, vol. 2, pp. 24, 129, 1780). The work cited is well known but has been overshadowed by the same author's earlier "Specimen Zoologiae Geographicae, Quadrupedum . . ." published in 1777. This work, in Latin, was critically reviewed by J. A. Allen (Bull. Amer. Mus. Nat. Hist., vol. 16, pp. 13-22, 1902) and all the names proposed therein, including *Dama virginiana* (in Zimmerman, pp. 532, 678, and map opposite p. 36, 1777) were adopted. Opposition to Allen's measure arose (in Allen, *op. cit.*, p. 161, 1902) and centered on the questionable construction of some of the technical names in the "Specimen Zoologiae Geographicae." Most authors, including the present, now reject all names in Zimmerman's 1777 opus. On the other hand, scientific names appearing in the later "Geographische Geschichte" are properly proposed and, save for *Dama virginiana*, are universally cited. The several North American species first named by Zimmerman, 1780 and recognized by Miller (List of North American Recent Mammals, 1923), are as follows: *Bos moschatus* Zimm., vol. 2, p. 86 (= *Ovibos moschatus moschatus*, Miller, p. 494; genotype of *Ovibus* Blainville), *Latra (minima)* Zimm., vol. 2, p. 317 (genotype of *Chironectes* Illiger, Miller, p. 9), *Dipus Hudsonius* Zimm., vol. 2, p. 358 (= *Zapus hudsonius hudsonius*, Miller, p. 432; genotype of *Zapus* Coues,) *Phoca fasciata*, Zimm., vol. 3, p. 277, 1783 (= *Phoca fasciata*, Miller, p. 164; genotype of *Histriophoca* Gill).

Omission of *Dama virginiana* from the "Check List" is unaccountable. Miller's objection (Proc. Biol. Soc. Washington, vol. 15, p. 39, 1902) to the use of *Dama* dating from Zimmermann's "Specimen Zoologiae Geographicae," 1777, cannot

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be applied to either the generic or specific name proposed by Zimmermann in 1780 for the Virginia Deer.

In the first part of the "Geographische Geschichte," 1780, Zimmermann showed that in spite of opinions to the contrary held by other Linnaean authors, the Virginia Deer is not the same as the Fallow Deer. Under the heading (p. 24) "Der Damhirsch," identified in the footnote as *Cervus dama* Linnaeus, Zimmermann states, "Ich habe mir Mühe gegeben, den Damhirsch in Amerika aufzusuchen; allein bis jetzt sehe ich mich völlig in der Pennantischen Meinung bestätigt, nämlich, dass er nirgends als in der alten Welt lebt. Die Hörner, so Herr Pennant von dem sogenannten amerikanischen Damhirsche geliefert hat, sind ohne Schaufeln, also ohne Hauptkennzeichen dieser Art. Daher halte ich den virginischen Damhirsch (*Dama virginiana* Raj. Synops., p. 86) für eine neue nicht völlig genau bestimmte Art, . . ." (italics mine). In the second part of the "Geographische Geschichte," Zimmermann formally distinguished the two deer from each other by describing each under a new name, thus:

[p. 128] "42 Der Damhirsch [*sic*]
 "Platyceros Plinii *Cervus (Dama)* Linn. XII. Erxl. p. 309
 "Fallow Deer Penn. p. 48."

[Description follows]

[p. 129] "44) "Der Virginische Hirsch
 "*Dama Virginiana*. Raji synops. quadr. p. 86 [1693]
 "Fallow Deer, Lawson Carolina p. 123. Virginian Deer. Pennant Syn. p. 51. Tab. IX, fig. 2. Die Hörner.

"Die Hörner sind stark vorwärts, halb zirkelförmig gebogen; haben keine Stirnzinken; oberwärts mit vielen Enden besetzt. Grösse eines Dannhirsches [*sic*]. Farbe graulich braun, (ziemlich helle.) Schwanz länger als am Reh. Eine völlig von unserm Dannhirsche [*sic*] verschiedene Art. Bewohnt in grossen Heerden Carolina, Virginien, Louisiana, und geht vielleicht bis Panama hinunter."

Judged by the description, the name *virginiana* is based primarily on Pennant's "Virginian Deer" though Ray is cited first. Ray (*op. cit.*) gave no technical name to the Virginia Deer. He merely quoted, under his cervine subdivision "*Cervus PLAYTYCEROS*" the description of a menagerie specimen originally from Virginia ("*Virginianae*") which he believed to be distinct from the true Fallow Deer. Obviously, it was Zimmermann's intention to credit Ray as the first author to make a distinction between the two kinds of deer and not as the author of a distinct name for the Virginia Deer. Allen (*op. cit.*) had already assigned all the North American forms of Virginia Deer to the genus *Dama* Zimmermann. Unfortunately, this revision remained practically stillborn for two reasons. First, Allen dated the name *Dama* from the controversial "Specimen Zoologiae Geographicae," 1777, instead of the accepted "Geographische Geschichte," 1780. Second, Palmer's inconsidered instruction (in Allen, Bull. Amer. Mus. Nat. Hist., vol. 19, p. 591, footnote, 1903) that *Dama* Zimmermann was "preoccupied" by *Dama* Frisch, 1775, apparently "settled" the issue. Consequently, Allen and others revived *Odocoileus* Rafinesque, 1832, as the generic name for the

Virginia Deer. Since then, Palmer (in conversation, 1941) has denied the validity of Frisch's names. This opinion has been expressed previously by Sherborn (Index Animalium, p. xxv, 1902), and by Thomas and Miller (Ann. Mag. Nat. Hist., ser. 7, vol. 16, pp. 461-464, 1905).

With Frisch's names put aside, it appears necessary to substitute *Dama* Zimmermann, 1780, for *Odocoileus* Rafinesque, 1832. *Dama virginiana* Zimmermann (*loc. cit.*), with type locality restricted to Virginia, is the genotype by monotypy. The generic name *Dama* for the Fallow Deer, *Cervus dama* Linnaeus, heretofore credited to either Frisch, 1775, or to H. Smith, 1827, may be replaced by *Platyceros* Zimmermann (*loc. cit.*, p. 128; antedates *Platyceros* Wagner, 1844), with type *Platyceros Plinii* Zimmermann (= *Cervus dama* Linnaeus).

Most, if not all the confusion attending the taxonomic history of the Virginia Deer could have been avoided by strict application of the Law of Priority. The generic names successively given to representatives of the Virginia Deer are *Cervus*, *Mazama*, *Dorcelaphus*, *Cariacus*, *Oplacerus*, *Coassus*, *Reduncina*, *Macrotis*, *Gymnotis*, *Mamcariacus*, *Odocælus* and *Odontocælus*, the last two emendations of *Odocoileus* Rafinesque. The name *Odocoileus*, etymologically bad and typified by an upper premolar from a cavern deposit described as *O. spelæus*, is now universally applied to the Virginia Deer. It appears to have no better claim to recognition as a *nomen conservandum* than any of the other synonyms of *Dama* Zimmermann. Accordingly, the generic name *Dama* Zimmermann, 1780, for the Virginia Deer, is here revived with the hope that this note will afford an opportunity to other workers to express opinions on the matter.

The first properly constituted name for a South American Virginia Deer is [*Cervus*] *Capreolus cariacou* Boddaert (Elenchus Animalium, vol. 1, p. 136, 1784 or 1785). Boddaert cited "Buffon. XII. tab. 44." as sole reference and gave the "habitat in Guyania, Brasilia." The reference to Buffon is contained in the "Histoire Naturelle, générale et particulière avec la description du Cabinet du Roi," vol. 12, p. 321, 1764, in these words: "Cet animal, s'appelle à Cayenne *cariacou*, d'ou il a été envoyé vivant sous ce même nom *cariacou*, & nous en donnerons ici la description." There follows (*op cit.*, p. 347) an elaborate description and a figure (Pl. XLIV) of an adult doe of the common species, *Dama virginiana*. Boddaert's *cariacou* antedates *cariacou* Kerr (Animal Kingdom, p. 305, 1792) based on Smellie's translation (vol. 7, p. 34, pl. cci, 1780) of Buffon's description of the *cariacou*. Kerr's *Cervus sylvaticus* (*loc. cit.*), founded on the "Biche de Bois" of Barrere (France équinoxiale, p. 151, 1741), is another name for the same animal. The *Cervus Cuguapara* of Kerr (*loc cit.*) is a synonym of *Cervus bezoarticus* Linnaeus and not, as was supposed by Miranda Ribeira (Rev. Mus. Paulista, São Paulo, vol. 10, pp. 1-27, 1919) a Virginia Deer. This author misquoted Kerr's name as "*Odocoileus suaçuapara* (Kerr)?" and applied it to the Virginia Deer of northeastern Brazil. *Cervus spinosus* Gay and Gervais (Ann. Sci. Nat., ser. 3, zool., vol. 5, p. 93, 1846) described from antlers of a Virginia Deer from Cayenne, is also an absolute synonym of *cariacou* Boddaert. For a long time, the name *Cervus campestris* Cuvier (Diet. Sci. Nat., vol. 7, p. 484, 1817) had been applied to the Pampas Deer of Paraguay and Argentina (= *Ozotoceros bezoarticus leucogaster* Goldfuss). The original description of *campestris*,

however, can apply only to the Virginia Deer specimens of which, from unknown localities, were examined by Cuvier. Cabrera (Rev. Mus. La Plata, n. s., vol. 3, zool., pp. 5-41, 1943) discussed thoroughly the status of *Cervus campestris* and identified it (p. 11) with the Virginia Deer of the Guianas and northern Brazil. Accordingly, *campestris* Cuvier (*nec auctorum*) also falls into the synonymy of *cariacou* Boddaert. *Cervus savannarum* Cabanis (in Schomburgk, Reisen British Guiana, vol. 3, p. 784, 1848) from the vicinity of Fort San Joaquin, upper Rio Branco, Amazonas, Brazil, may prove to be an intergrading form not definitely assignable to either *cariacou* or *gymnotis* Wiegmann from the lower Orinoco. Geographically, *savannarum* is nearer *gymnotis* and tentatively may be regarded as a synonym of it. *Cervus mangivorus* Schrank (Wetteranischen Gesellsch., vol. 1, heft 2, p. 327, 1819) is based on a specimen obtained in Brazil by Spix. Schrank's synonymy of *mangivorus* is a composite of Virginia Deer ("cariacou Buffon") and brocket ("*Cervus minor* Barrere," "Cnguaeu-eté Mare[grave]"). The original description can be applied to any one species of Brazilian deer. Allen (Bull. Amer. Mus. Nat. Hist., vol. 34, p. 524, 1915) justifiably disposed of *mangivorus* as unidentifiable.

Other named forms of South American Virginia Deer, apparently subspecifically distinct from *cariacou*, are included in the list given below. The generic name *Dama* Zimmermann is reintroduced, provisionally, and the oldest specific name, *virginiana* Zimmermann, is pertinent to all the Neotropical races (*cf.* Lydekker, Cat. Ungulate Mammals, British Museum, vol. 4, pp. 155-176, 1915). A more complete account of the taxonomy, interrelationship and distribution of the South American representatives of the Virginia Deer has been prepared by the author and will appear among the Proceedings of the United States National Museum.

PROVISIONAL LIST OF THE SOUTH AMERICAN SUBSPECIES OF *DAMA VIRGINIANA*

1) *Dama virginiana cariacou* Boddaert, Elenchus Animalium, vol. 1, p. 136, 1784 or 1785. Type locality, "Guyania, Brasilia," here restricted to Guyane, coastal French Guiana. (Synonyms, *sylvaticus* Kerr, *cariacou* Kerr, *campestris* Cuvier, *spinus* Gay and Gervais, *suaçnapara* Miranda Ribeiro).

2) *Dama virginiana gymnotis* Wiegmann, Isis (von Oken), p. 955, footnote 4 (name), pp. 963-968 (description). Type locality, "stammt aus Columbien. Sein früherer Besitzer empfieng es über S. Thomas aus der Gegend des Orenoco;" redetermined by Osgood (Publ. Field Mus. Nat. Hist. zool. ser., vol. 10, p. 138, 1914) as "the Orinoco region, doubtless the savannas on the lower part of the river," Venezuela. (Synonyms, *savannarum* Cabanis, *wiegmanni* Fitzinger, *tumatumari* Allen [the type skull only; originally described as a *Mazama*]).

3) *Dama virginiana margaritae* Osgood, Publ. Field Mus. Nat. Hist., zool. ser., vol. 10, p. 24, pls. II-III, 1910. Type locality, vicinity of Puerto Viejo, Margarita Island, Venezuela.

4) *Dama virginiana curassavicus* Hummelinck, Studies on the Fauna of Curaçao, Aruba, Bonaire and the Venezuelan Islands, Utrecht, pp. 65, 91, pl. VIa, 1940. Type locality, Island of Curaçao, Dutch West Indies.

5) *Dama virginiana tropicalis* Cabrera, Bol. Soc. Real española Hist. Nat., Madrid, vol. 18, p. 306, 1918. Type locality, La María, Río Dagua Valley, near Buenaventura, western Colombia.

6) *Dama virginiana goudotii* Gay and Gervais, Ann Sci. Nat., Paris, ser. 3, zool., vol. 5, p. 94, 1846. Type locality "Les régions élevées de la Nouvelle-Grenade;" here restricted to the Páramo de Suma Paz, south of Bogotá, Cundinamarca, Colombia, for reasons shown (in press). (Synonym, *columbicus* Fitzinger).

7) *Dama virginiana lasiotis* Osgood, Publ. Field Mus. Nat. Hist., zool. ser., vol. 10, p. 136, 1914. Type locality, Páramo de los Conejos, Sierra de Mérida, Venezuela, altitude, 9,000 feet. (Doubtfully distinct from *goudotii*).

8) *Dama virginiana consul* Lönnberg, Arkiv für Zool., vol. 14, no. 20, p. 13, 1922. Type locality, Guamaní, páramos of the Cordillera Oriental on road to Papallacta, Pichincha Province, Ecuador, 12,000 feet altitude. (Doubtfully distinct from *goudotii*).

9) *Dama virginiana peruviana* Gray, Ann. Mag. Nat. Hist., ser. 4, vol. 13, p. 332, 1874. Type locality, "Ceuchupate," (probably = Com-bapata, Cuzco), Peru, altitude, 11,000 feet. (Synonyms, *brachyceros* Philippi, *philippii* Trouessart).